



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

and able to walk like other boys. Carl promised to do what he was told, and bore his sufferings as best he could in the hard weeks that followed.

One day the doctor told him that he could go about the room on crutches. What a happy day that was for all !

Next, the crutches were thrown aside, and Carl walked with a cane. Then the day came when the doctor said: "Carl, you may throw aside that cane and walk as I do."

"Now, I must go to work to help mother," said Carl.

The doctor was greatly interested in Carl's engines and boats, and soon found him work that gave him a good chance to keep on with his inventions.

Carl became a great inventor, and now came his chance to help Jack, who needed his help, as he had never been able to get away from Mr. Tuley's store.

Carl needed him in his work, and the two friends were always together. Carl was never satisfied with anything he did unless Jack saw and approved it, and Jack was never so happy as when Carl was with him.

## FIRST GRADE.

ELSIE AMY WYGANT.

REVIEW FOR DECEMBER.

DURING December the dominant interest of the entire school centered in the preparation for Christmas. The school trimmed a Christmas tree for the University Settlement. Each grade was responsible for a part of the decoration of it. The first grade made cornucopias and the candy with which to fill them; also sugar crystals. On the last school day before Christmas we had a Christmas party. The program consisted of pantomime, music, and dancing about the tree.

*Science and geography.*—The time of these two subjects was devoted to a study of crystals, divided for convenience into work on snow crystals, as science, and into work on rock crystals, as geography. Having had no snow storm which offered any opportunity for examining crystals, that part of the work is delayed until such a storm comes.

The work on crystallization is a continuation of the work with the pebbles which we brought from the lakeshore.

At this time, however, the children's particular interest was in making crystals to hang on the Christmas tree. Many varieties were shown them before they attempted to make any themselves. The crystals were attractive simply as beautiful things, but the interest with which the children examined them after making their own was a vital, analytical interest which should lead to a better picturing of the great forces which produce crystallization in the natural world.

Heretofore we have used small quantities of material in making crystals, and the results have been proportionally minute. For the purpose of getting larger and more perfect crystals, we visited a wholesale rock candy establishment, where we obtained very helpful suggestions and the following recipe :

40 pounds of sugar.

1 gallon of water.

Stir only until sugar is dissolved.

Boil to 234° F. (This temperature insures proper density.)

Keep at a temperature of 70°, or above, for 3 days (24 hours each).

Avoid any severe jarring.

The suggestions below, gained during the visit, proved so helpful to us that they are given in some detail :

The first necessity for attaining large and clear crystals is to use a sufficient quantity of material, so that the crystals at the bottom may have a considerable weight of the material itself upon them. After the syrup is boiled it must remain in an even temperature, drafts particularly being avoided. Occasionally thermometers vary slightly, so that 234° does not indicate sufficient density. This may be discovered in about five minutes after the syrup is poured out to cool. By that time a coating has formed on the top. If this is rough and irregular, it indicates successful crystallization, but if smooth and glassy, the syrup must boil longer. It may be poured back, boiled two or three degrees higher, and again poured out to cool.

Deep, rectangular tin pans are used for cooling the syrup. Across these the strings (heavy linen threads) are run (about an inch and a half apart) through holes on opposite sides. A paper is pasted over the outside to avoid leakage. Any tin pan of sufficient depth, say twelve inches or more, may be used. The tins described may be obtained from any confectionery supply house.

To insure crystals of pure white color confectionery sugar is used, preferably "Mold A" or "Diamond A." This sugar, also, may be obtained of any confectionery supply store.

Our results were very satisfactory, each string showing good crystals, the size increasing with the depth below the surface, so that the lower ones were in diameter the full inch and a half which the spacing of the strings allowed.

*History.*—We discontinued the regular work and devoted the time to telling stories of how children of other nations celebrate Christmas, and to telling some Christmas legends: "St. Christopher and the Child;" "The First Christmas Tree," by Hans Andersen; "The Symbol and the Saint," adapted from *A Little Book of Profitable Tales*, by Eugene Field. In telling the stories of Christmas in other lands, a child's life in a typical home in Norway, Holland, and Italy was described. We attempted to get a correct setting by means of dolls, dressed in native costumes, and such articles from the respective countries as could be obtained. We used pictures freely in this connection.

NOTE.—A complete bulletin of references for Halloween, Thanksgiving day, and Christmas has been issued by the Chicago Public Library and may be obtained there at three cents a copy.

*Number.*—Our number work was such as the making of the gifts, the cornucopias, and the crystals demanded.

Each child made a twine-box of strawboard, a candlestick in clay, and one article in wood, this varying with the skill and choice of each child.

The following diagram shows the number processes involved in the making of the twine-box.

In order to make accurate semi-circles a circle maker was needed. This was made from the following dictation, written upon the blackboard:

Make a rectangle 6 inches long and 1 inch wide.

Find the middle of one short side.

Place a dot.

Find the middle of the other short side.

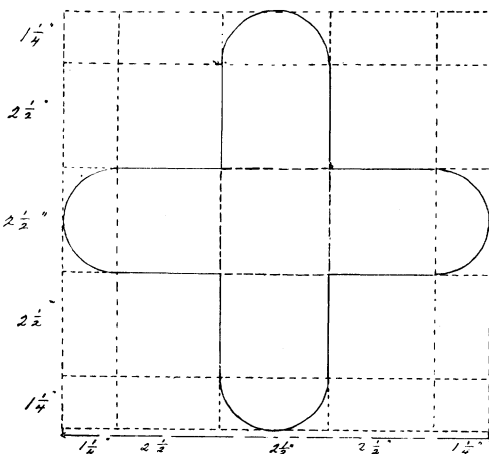
Place a dot.

Connect the dots.

Place dots along this line,  $\frac{1}{4}$  of an inch apart.

A pencil can be put through one dot and a pin through another at a distance of the desired radius.

The twine-box was covered with a daintily figured paper  $\frac{1}{2}$  inch larger than the strawboard, and it was lined with manilla paper just the size of the strawboard. Drill in getting square corners, accuracy of measurement, etc., was thus obtained through the repetitions necessary to the best making of the article itself.



After considerable searching for paper with a small design, we found a very satisfactory variety of paper at H. Schultz & Son's Paper Box Co., 117-123 Market street, Chicago.

The clay candlesticks offered a form sufficiently simple for the children, and an adaptability of design which gave opportunity for originality in planning. Another time the value of this work could be increased by having the children make and color their own candles.

The following cuts show the articles made in wood and the number processes involved.

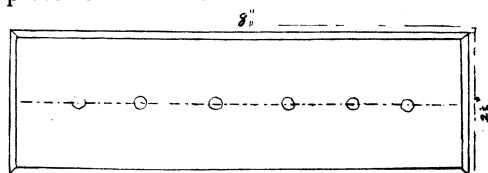
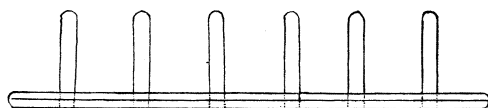
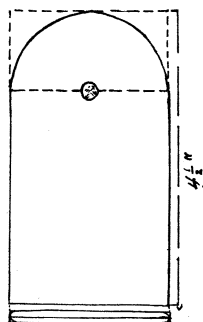
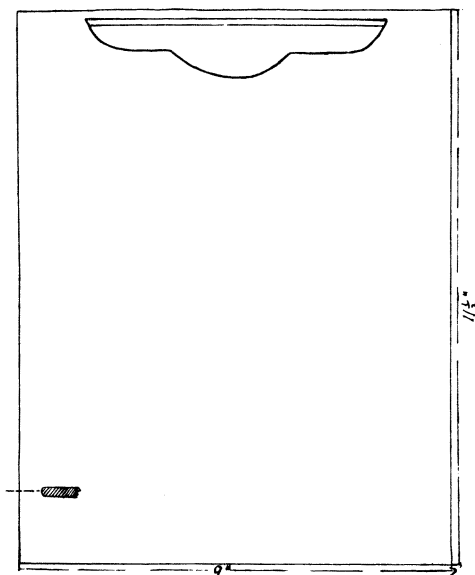


FIG. 1.

FIG. 2.  
SPOOL-HOLDER.BACK FOR MATCH-  
SCRATCHER OR  
CALENDAR.

WRITING-BOARD.

*Home economics.*—The children made "barley sugar candy," to fill the cornucopias for the Christmas tree, according to this recipe :

$\frac{1}{2}$  pint of sugar.

$\frac{1}{4}$  pint of water.

$\frac{1}{2}$  saltspoonful of cream of tartar.

Boil until it turns yellow.

Add 1 teaspoonful of lemon juice.

Pour into shallow tin pans (thoroughly buttered).

When cool enough, so that marks made by a knife remain in the candy, cut into squares.

## OUTLINE FOR FEBRUARY.

The plan of work for January, printed in the issue for that month, was put into the hands of the practice teachers, the regular teacher finishing out the uncompleted work of the previous month and continuing work on the playhouse. The plan for January requires so many industrial excursions that more than one month can be profitably employed in carrying it out. Accordingly the work outlined will be continued through February.

In connection with the science and geography we shall take up transportation more fully than is indicated. In number work we shall make calendars and candle shades, to be used as valentines.

*Music*.—"The Happy Eskimo" and "The Bogieman," from *Primer*; "Modern Music" series; Eleanor Smith, "The Blacksmith," *Songs for Little Children*, Part I.

## SECOND GRADE.

CLARA ISABEL MITCHELL.

## OUTLINE FOR JANUARY AND FEBRUARY.

THE central activities of the second grade for January and February will be: (1) housekeeping; (2) cooking; (3) wood-working; (4) primitive spinning and weaving; (5) story-telling and entertainments; (6) plays, games, and gymnastics; (7) singing.

1. *Housekeeping*.—Pleasant arrangement of schoolroom; care of furniture, books, goldfish, and plants; washing of dishes used in cooking; setting of table for luncheon; keeping of expense account.

2. *Cooking*.—Steamed apples with syrup; cranberry jelly; rice with tomato sauce; baked potato; pop-corn candy.

3. *Wood-working*.—Making of primitive spindles.

4. *Spinning, dyeing, and weaving* of cover for small tent for illustrating shepherd life in Arabia.

5. *Story-telling and entertainments*.—A twenty-minute exercise for the entertainment of the entire school: stories of shepherd life in Arabia and Persia, also of patriarchal times; a half-hour daily of story-telling or reading; observation of Lincoln's and Washington's birthdays.